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10/710,019	06/13/2004	Sam Shiaw-Shiang Jiang	5413-0185PUS1	4018

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EXAMINER
ANDREWS, LEON T

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/710,019	JIANG ET AL.	
	Examiner	Art Unit	
	Leon Andrews	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 June 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/9/2007*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 11 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11, line 2 and Claim 23, line 2 recited 'a majority vote'. It is unclear as to what is meant by this terminology

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-26 are rejected under 35 U.S.C. 102 (b) as being unpatentable by **Lin et al.** (Patent Number: 5,832,000).

Regarding Claim 1, Lin et al. discloses a method (Figs. 5, 7) of communicating data comprising:

providing a first peer (Fig. 1, base station 116) and a second peer (Fig. 1, SCU 122);

successively transmitting a first predetermined number of more than one identical instances (Fig. 6, 514, 516, 518) of a data block (Fig. 6, 512) with a first transmitter (Fig. 2, transmitter 202) of the first peer;

receiving at least two of the first predetermined number of identical instances of the data block (Fig. 6, 520, 522) with a second receiver (Fig. 3, receiver 304) of the second peer; and

combining more than one corrupted received data blocks (combination matrix used for reconstructing the original message and information indicating the number of times the combining matrix is to be applied to the error-tolerant message for reconstructing the original message, column 7, lines 25-29) to form a complete instance of the data block (Fig. 6, 512) at the second peer.

Regarding Claim 2, Lin et al. discloses the method of claim 1 wherein combining more than one corrupted received data blocks to form a complete instance of the data block (Fig. 6, 512) at the second peer further comprises:

transmitting a response to the complete instance of the data block with a second transmitter (Fig. 5, 510, transmit the error-tolerant message to the designated SCR's of Fig. 1) of

the second peer.

Regarding Claim 3, Lin et al. discloses the method of claim 2 further comprising:

successively transmitting a second predetermined number of more than one identical instances (selected number of the nine groups may be transmitted at different times thereby providing diversity transmission of the error-tolerant message, column 6, lines 45-47) of the response with the second transmitter of the second peer.

Regarding Claims 4 and 26, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and method (Figs. 5, 7) wherein the second predetermined number is an odd number (error-tolerant message comprises forty five elements, column 6, lines 49-51).

Regarding Claim 5, Lin et al. discloses the method of claim 1 wherein successively transmitting a first predetermined number of more than one identical instances (Fig. 6, 514, 516, 518) of a data block (Fig. 6, 512) with a first transmitter (Fig. 2, transmitter 202) of the first peer further comprises:

correctly receiving an expected response of the data block with a first receiver (controller 112 delivers the received messages to the base station 116, column 2, lines 13-15) of the first peer; and

disabling the successive transmission of the data block (SCR 122 to request retransmission of portions of corrupted messages that are unrecoverable, column 3, lines 61-65) of the first transmitter of the first peer.

Regarding Claims 6 and 15, Lin et al. discloses the transmitting peer (Fig. 1, base station 116) and method (Figs. 5, 7) wherein the expected response is a positive acknowledgment of the data block (error-correction algorithm is recursively applied to the original message and subsequent by-products therefrom, until an error-tolerant message has been generated, column 4, lines 1-4).

Regarding Claims 7 and 16, Lin et al. discloses the transmitting peer (Fig. 1, base station 116) and method (Figs. 5, 7) wherein the expected response is in a group of possible responding messages of the data block (Fig. 4, applying the information dispersal algorithm to each by-product 404 - 408, generates a total of nine by-products grouped as three sets of 410 – 414, column 4, lines 11-14).

Regarding Claim 8, Lin et al. discloses the method of claim 1 wherein said successive transmitting and said receiving are performed over a dedicated channel (receiver 304 and antenna 302 are conventional RF elements which form a receiver circuit for receiving message transmitted by the base station 116, column 2, lines 36-39) shared only by the first and second peers.

Regarding Claims 9 and 21, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and method (Figs. 5, 7) wherein combining more than one corrupted received data blocks comprises taking a rounded arithmetic average for each bit (bit error rate after a first application of an error correction algorithm is 1 bit error for every 10,000 bits, column 3, lines 26-28) of these received data blocks.

Regarding Claims 10 and 22, Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and method (Figs. 5, 7) wherein the number of combined corrupted received data blocks is an odd number (error-tolerant message comprises forty five elements, column 6, lines 49-51).

Regarding claims 11 and 23 (as best understood), Lin et al. discloses the receiving peer (Fig. 1, SCU 122) and method (Figs. 5, 7) wherein the second processor is capable of performing a majority vote for each bit (bit error rate after a first application of an error correction algorithm is 1 bit error for every 10,000 bits, column 3, lines 26-28) among the received data blocks when combining more than one corrupted received data blocks.

Regarding Claim 12, Lin et al. discloses the method of claim 1 wherein the first predetermined number is an odd number (error-tolerant message comprises forty five elements, column 6, lines 49-51).

Regarding Claim 13, Lin et al. discloses a transmitting peer (Fig. 1, base station 116) of a communications system (Fig. 1, communicating system, column 1, lines 47-48) comprising:

a first antenna (Fig. 2, 201) coupled to a second antenna (Fig. 3, 302) of a receiving peer (Fig. 3, receiver 304) via a transmission medium (Fig. 3);

a first transmitter (Fig. 2, transmitter 202) electrically connected to the first antenna for transmitting data blocks;

a first receiver (Fig. 3, receiver 304) electrically connected to the first antenna (Fig. 3) for receiving a response from the receiving peer (Fig. 1, SCU 122);

a first processor (Fig. 2, processing system 210) electrically connected to the first transmitter for controlling the first transmitter to successively transmit a first predetermined number of more than one identical instances (Fig. 6, 514, 516, 518) of a data block (Fig. 6, 512) of a data block (Fig. 6, 512) via the first antenna; and

a first power supply (Fig. 2, base station 116) electrically connected to the first transmitter and the first processor. wherein the first processor is capable of detecting an expected response of the data block at the first receiver (Fig. 5, 510, transmit the error-tolerant message to the designated SCR's of Fig. 1), and accordingly disabling the successive transmission of identical instances of the data block (SCR 122 to request retransmission of portions of corrupted messages that are unrecoverable, column 3, lines 61-65) at the first transmitter.

Regarding Claim 14, Lin et al. discloses the transmitting peer of claim 13 wherein the first antenna comprises two sets of antenna units (Fig. 2, RF transmitter 202 coupled to an antenna 201 which together form a transmitter circuit for transmitting received messages, column 2, lines 30-32), one electrically connected to the first transmitter and the other electrically connected to the first receiver (Fig. 3).

Regarding Claims 17 and 20, Lin et al. discloses the transmitting peer (Fig. 1, base station 116) and receiving peer (Fig. 1, SCU 122) wherein the transmission medium is a dedicated channel of electromagnetic waves (Fig. 1, 102 controls a plurality of base stations 116 by way of communication links such as microwave links, column 2, lines 2-5).

Regarding Claim 18, Lin et al. discloses the transmitting peer of claim 13 wherein the first

predetermined number is an odd number (error-tolerant message comprises forty five elements, column 6, lines 49-51).

Regarding Claim 19, Lin et al. discloses a receiving peer (Fig. 1, SCU 122) of a communications system (Fig. 1, communicating system, column 1, lines 47-48) comprising:

a second antenna (Fig. 3, 302) coupled to a first antenna (Fig. 2, 201) of a transmitting peer (Fig. 2, transmitter 202) via a transmission medium (Fig. 3);

a second receiver (Fig. 3, receiver 304) electrically connected to the second antenna for receiving data blocks;

a second processor (Fig. 3, processor 310) electrically connected to the second receiver for combining more than one data blocks (combination matrix used for reconstructing the original message and information indicating the number of times the combining matrix is to be applied to the error-tolerant message for reconstructing the original message, column 7, lines 25-29) received successively to form a complete instance of the data block (Fig. 6, 512); and

a second power supply (Fig. 3, power switch 304) electrically connected to the second receiver and the second processor.

Regarding Claim 24, Lin et al. discloses the receiving peer of claim 19 wherein the second processor further comprises a second transmitter (Fig. 1, SCU 122) for transmitting a response to the transmitting peer (Fig. 7, 608, process the original message reconstructed from the error-tolerant message).

Regarding Claim 25, Lin et al. discloses the receiving peer of claim 24 wherein the second transmitter is capable of successively transmitting a second predetermined number (Fig. 6, 524) of more than one identical instances of the response.

Citation of Pertinent Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Padovani (Patent No.: US 6,411,799 B1) discloses method and apparatus for providing ternary power control in a communication system.

Ng (Pub. No.: US 2003/0011474 A1) discloses circuit and method for electronic security seal.

Muthuswamy et al. (Pub. No.: US 2004/0192290 A1) discloses communication system with call quality indication and method therefore.

Walton et al. (Pub. No.: US 2005/0250452 A1) discloses power efficient multi antenna wireless device.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leon Andrews whose telephone number is (571) 270-1801. The examiner can normally be reached on Monday through Friday 7:30 AM to 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rao S. Seema can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Seema S. Rao 11/26/07
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